Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended)

A method for compressing digital images upon capture at a digital camera device, the method comprising:

receiving user input requesting capture of a sequence of digital images at the digital camera device, said digital images being stored in an image buffer;

applying a relatively-fast compression technique to temporarily compress a subset of the digital images upon capture, so as to increase availability of storage in said image buffer for storing other digital images being capture, wherein said digital camera device supports a multithreaded execution environment and wherein said step of applying the relatively-fast compression technique occurs as a high-priority thread within the multithreaded execution environment;

deferring decompression of the subset of the digital images until the digital camera device has processed high-priority tasks in the high-priority thread;

decompressing the subset of the digital images that were temporarily compressed; and thereafter

applying a relatively-thorough compression technique to the decompressed subset of the digital images wherein said steps of decompressing and applying a relatively-thorough compression technique occur on a low-priority thread subordinate to the high-priority thread once the digital camera device has processed the high-priority tasks.

2. (Original)

The method of claim 1, wherein said relatively-fast compression technique requires fewer processing resources for completion than said relatively thorough compression technique.

3. (Previously Presented)

The method of claim 1, wherein said digital camera device supports multithreaded execution and wherein said step of applying the relatively-thorough compression technique occurs as a background execution thread.

4. (Original)

The method of claim 3, wherein said background execution thread comprises a low-priority thread that is executed by a microprocessor of the digital camera device.

5. (Original)

The method of Claim 1, wherein said sequence of digital images comprises successive pictures rapidly captured at the digital camera device.

6. (Original)

The method of claim 5, wherein the digital images of the sequence are captured within a few seconds time.

7. (Original)

The method of claim 1, further comprising:

after the digital images have been compressed using the relatively-thorough compression technique, storing the compressed digital images on media.

8. (Original)

The method of claim 1, further comprising:

after the digital images have been compressed using the relatively-thorough compression technique, transferring the compressed digital images to another device.

9. (Previously Presented)

The method of claim 8, wherein the compressed digital images are transferred using wireless communication.

10. (Previously Presented)

The method of claim 8, wherein the compressed digital images are transferred using wireline communication.

11. (Cancelled)

12. (Original)

The method of claim 1, wherein the relatively-thorough compression technique produces a smaller-sized compressed image file for a given digital image than that produced by the relatively-fast compression technique.

13. (Original)

The method of claim 1, wherein the relatively-fast compression technique requires less compression time when compressing a given digital image than that required by the relatively-thorough compression technique.

14. (Original)

The method of claim 1, further comprising:

after a given digital image is temporarily compressed, storing a compressed file of that digital image in a flash memory.

15. (Original)

The method of claim 1, further comprising:

after a given digital image is temporarily compressed, storing a compressed file of that digital image in a RAM buffer.

16. (Original)

The method of claim 1, further comprising:

after a given digital image is temporarily compressed, storing a compressed file of that digital image back in the image buffer.

17. (Original)

The method of claim 1, further comprising:

after a given digital image is temporarily compressed, deleting the given digital image's original copy from the image buffer.

18. (Original)

The method of claim 1, further comprising:

after a given digital image is temporarily compressed, performing substeps of:

(1) storing a compressed file of that digital image in a RAM buffer, and

(2) transferring the compressed file from the RAM buffer to flash memory.

19. (Original)

The method of claim 18, wherein said transfer step occurs when the RAM buffer is nearly exhausted.

20. (Original)

The method of claim 18, wherein said transfer step occurs when the user is no longer requesting capture of a sequence of digital images.

21. (Original)

The method of claim 1, wherein latency of the digital camera device is decreased between capturing successive images when the relatively-fast compression technique is employed, as compared to employing the relatively-thorough compression technique.

22. (Original)

The method of claim 1, further comprising:

capturing each digital image as a luminosity record; and

applying pre-compression to each luminosity record, in preparation for compression.

23. (Original)

The method of claim 22, wherein said pre-compression comprises selected ones of noise smoothing and de-mosaic.

24. (Cancelled)

25. (Original)

The method of Claim 1, wherein said relatively-fast compression technique includes discrete wavelet transformation.

26. (Original)

The method of claim 1, wherein said relatively-fast compression technique includes quantization.

27. (Original)

The method of claim 1, wherein said relatively-fast compression technique includes low-complexity entropy encoding.

28. (Original)

The method of claim 27, wherein said low-complexity entropy encoding includes run-length encoding.

29. (Previously Presented)

The method of claim 1, further comprising:

deferring applying said relatively-thorough compression technique to the digital images during periods of time when a user is providing additional input.

30. (Previously Presented)

The method of claim 29, wherein said additional input comprises the user input other than that for requesting capture of additional images.

31. (Previously Presented)

The method of claim 29, wherein said additional input comprises the user input for configuring the digital camera device.

32. (Original)

The method of Claim 1, wherein said step of decompressing any of . the compressed digital images that were temporarily compressed restores the digital images to their approximate pre-compression state.

33. (Original)

The method of Claim 1, wherein said relatively-fast compression technique includes lossy compression technique.

34. (Original)

The method of Claim 1 , wherein said relatively-thorough compression technique includes lossy compression technique.

35. (Original)

The method of Claim 1 , wherein said relatively-thorough compression technique includes high-complexity entropy encoding.

36. (Original)

The method of claim 1, wherein each digital image is divisible into separate bit planes and wherein said relatively-fast compression technique includes:

applying compression to individual bit planes of a given digital image undergoing compression.

37. (Original)

The method of claim 36, wherein said decompressing step includes:

decompressing an individual bit plane of a given digital image before decompressing other bit planes of that given digital image.

38. (Original)

The method of claim 1, wherein said relatively-fast compression technique provides about 1:4 compression.

39. (Original)

The method of claim 1, wherein said relatively-thorough compression technique provides approximately 1 :20 compression.

40. (Original)

The method of claim 1, further comprising:

transmitting the compressed digital images wirelessly for remote processing to a JPEG-compatible format.

41. (Currently Amended)

A digital camera device, that supports a multithreaded execution environment, with improved latency time between acquiring pictures, the device comprising:

an image buffer to store digital images;

a user-activated button, integrated into the digital camera device, for generating a user request to capture a sequence of digital images at the digital camera device, said sequence of digital images being stored in the image buffer upon capture;

a first compression module, embodied within the digital camera device, for temporarily compressing, with a relatively fast compression technique, at least some of the digital images from the sequence of digital images upon capture, thereby freeing up available storage in said image buffer, wherein the first compression module ~~temporarily compressing at least some of the digital images~~ operates ~~as~~ on a high-priority thread in the multithreaded execution environment;

a buffer to store a temporarily compressed image;

a decompression module, embodied within the digital camera device, for decompressing the digital images that were temporarily compressed and, to defer said decompressing of the digital images until high priority tasks in the high-priority thread have been processed by the digital camera device; and

a second compression module, embodied within the digital camera device, for compressing the decompressed digital images that were temporarily compressed more thoroughly than that provided by said first compression module, prior to storing the image in a non-volatile memory, wherein the decompression module and the second compression module operate on a low-priority thread subordinate to the high priority thread of the first compression module in the multithreaded execution environment.

42. (Previously Presented)

The device of claim 41, wherein said first compression module employs a relatively-fast compression technique that requires fewer processing resources for completion than a relatively-thorough compression technique employed by the second compression module.

43. (Previously Presented)

The device of claim 41, wherein said digital camera device supports multithreaded execution and wherein said fist second compression module employs a compression technique that operates as a background execution thread.

44. (Original)

The device of claim 43, wherein said background execution thread comprises a low-priority thread that is executed by a microprocessor of the digital camera device.

45. (Original)

The device of claim 41, wherein said sequence of digital images comprises successive pictures rapidly captured at the digital camera device.

46. (Original)

The device of claim 45, wherein the digital images of the sequence are captured within a few seconds time.

47. (Original)

The device of claim 41, wherein the digital images that have been compressed using the second compression module are stored on a media device.

48. (Original)

The device of claim 41, further comprising:

a communication means for transferring the compressed digital images to another device.

49. (Previously Presented)

The device of claim 48, wherein the compressed digital images are transferred using wireless communication.

50. (Previously Presented)

The device of claim 48, wherein the compressed digital images are transferred using wireline communication.

51. (Original)

The device of claim 41, further comprising:

a flash memory for storing a given digital image that has been temporarily compressed.

52. (Previously Presented)

The device of claim 41, further comprising:

the buffer being a plurality of a RAM buffers, each buffer designed for storing a given digital image that has been temporarily compressed.